

**REMARKS**

Reconsideration is respectfully requested in light of the foregoing amendments and remarks that follow.

Claims 1-10 are before the Examiner. Claims 2, 3, 6, 8 and 9 have been amended to address points raised in the Office Action. Claim 1 has been amended to more clearly set forth the invention. Support for the amendatory language is found on page seven of the specification.

The objections to claims 3 and 6 have been addressed by amendment. The spelling of "alkoxyde" has been corrected. The language suggested by the Examiner as to claim 6 has been adopted.

Claims 2-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse.

Claims 2 and 6 have been amended to address the points raised by the Examiner. The phrase objected to has been deleted.

Reconsideration relative to the indefiniteness of "higher than" as it appears in claims 8 and 9 is respectfully requested. Claim 8 recites "a temperature higher than 16.6°C" and claim 9 recites a "pressure higher than 58.4 bar". The meaning of "higher than" is clear. If the Examiner wishes an alternative expression, such as "above", please advise and Applicants will make the substitution. "[H]igher than \_\_\_\_" appears in the claims of numerous patents.

Withdrawal of the rejection is respectfully requested in light of the claim amendments and the remarks made.

Claims 1 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graser et al. (US4667417 ("R1")). Applicants respectfully traverse.

Graser et al. describe a process for the preparation of an aerogel by drying an inorganic hydrogel, which comprises replacing the water present in the hydrogel with a water-miscible organic medium, then replacing the water-miscible organic medium with liquid CO<sub>2</sub>, removing the CO<sub>2</sub> and drying the gel. There is no mention of noble gases. Further, the Graser et al. method requires the displacement of water with a water-miscible organic medium and then the displacement of the water-miscible organic solvent with liquid CO<sub>2</sub>. The instant method does not require the series of displacement steps with different "solvents". The use of xenon avoids the series of displacement steps appearing in the Graser et al. process. Further, neither the water-miscible organic solvent nor liquid CO<sub>2</sub> are related in their chemistries to xenon, a noble gas.

If one employs common sense, it is not seen why one would substitute chemically unrelated solvents for one another. Further, it is not clear that the solvents function in an equivalent manner. Graser et al. employ a series of solvents. The first has affinity for water. The second has affinity for the first solvent, a water miscible organic medium. Consider pages 4, 5 and 6 of the instant specification where the instant process is described and contrast that description with the descriptions of the prior art processes appearing on pages 2-4, ending with the first complete paragraph.

It is respectfully submitted that reliance on Graser et al. alone does not establish a proper *prima facie* case. Withdrawal of the rejection is respectfully requested.

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graser et al. (US4667417 ("R1") as applied to claim 1 above in view of Cogliati et al. (US5207814, (R2"). Applicants respectfully traverse.

The deficiencies of Graser et al. are discussed above. These deficiencies are not remedied by the teachings of Cogliati et al.

Cogliati et al. describe a process for the preparation of monoliths of aerogels of metal oxides. Metal alkoxide(s) is mixed with water in the presence of an acid catalyst then hydrolyzed. Following hydrolysis, a colloidal of a metal oxide is added and gellation occurs. The gel is then washed with a chlorinated organic solvent to remove water-alcohol solution contained within the pores of the gel. The gel is dried at values of the temperature which are higher than the critical the critical pressure and temperature values of the solvent used for the washing. Cogliati et al. does not use xenon or materials chemically similar to xenon. Cogliati et al. employs chlorinated organic solvents, e.g. 1,1,1-trichloroethylene. It is not seen how Cogliati et al. suggests xenon or the avoidance of the series of displacement steps required by Graser et al.

The supercritical drying with xenon can be done at a temperature above 16.6°C and a pressure above 58.4 bars. In contrast, Graser et al. employs in Example 1 an autoclave, temperatures in the range of 300° C and pressures in the order of 160 bar. The effects of more severe conditions are mentioned in the specification, for example, on page 3 at lines 21-24.

It is respectfully submitted that reliance on Graser et al and Cogliati et al. do not establish a proper *prima facie* case. Withdrawal of the rejection is respectfully requested.

Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graser et al. (US4667417 ("R1")) in view of Cogliati et al. (US5207814 ("R2")).

The additional rational provided by the Examiner has been considered. This additional rationale does not address the points discussed above. Withdrawal of the rejection is respectfully requested since a proper *prima facie* case has not been established.

Amendment dated

Reply to Office Action of September 20, 2007

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Dated: 12/4/2007

Respectfully submitted,

By

Thomas G. Wiseman

Registration No.: 35,046

VENABLE LLP

P.O. Box 34385

Washington, DC 20043-9998

(202) 344-4000

(202) 344-8300 (Fax)

Attorney/Agent For Applicant